

TABLE 3.1 Aquifer and Well Characteristics in Arizona

Well characteristics

Aquifer name and description

Depth,

common range (ft)

Yield (gal/min)

Remarks

Common range

May exceed

Alluvial aquifers: Generally sand, gravel, silt, and clay. Occur in the Basin and Range lowlands and parts of the Central highlands. Confined and unconfined

Sandstone aquifers: Mostly finegrained sandstone units; fracturing and faulting increases permeability; in places, siltstone and claystone layers function as confining beds. Occur in parts of the Central highlands and in the Plateau uplands. Confined and unconfined.

Low-yielding bedrock aquifers: Crystalline and sedimentary rocks. Permeable only where extensively fractured and faulted. Confined and unconfined.

100-2,000

50-2,000

50-1,000

1,000

2,500

Thickness from a few hundred to about

10,000ft. Deposits grade in texture from large boulders near mountains to fine-grained sediments along axis of valleys. In places, dense clay beds form confining layers for permeable sand and gravel beds beneath. Provides water for most cities and extensive irrigated areas in southern part of State.

0-50

500

Thickness from about 200 to 500 ft.

Aquifers may be as much as 1,000 ft below land surface and are separated by thick, relatively impervious layers. Coconino and Navajo Sandstones provide largest supply of water for all uses in central and northern parts of State.

0.5-2

200

These rocks are generally not considered to

be aquifers but do supply usable quantities of water to individual sources for domestic supply in rural areas.

SOURCE: U.S. Geological Survey, 1984.